A GUIDE FOR VETERANS WITH LIMB LOSS

This guide can help answer question you may have about your surgery and what comes next. It is for Veterans with limb loss, as well as their families and caregivers.

Michael E. DeBakey VA Medical Center

Personal Record

Date of surgery:

Level of surgery:

Surgeon(s):

Rehabilitation doctor:

Social Worker:

Kinesiotherapist:

Occupational Therapist:

Physical Therapist:

Prosthetist:

Amputation Rehab Coordinator:

Peer Visitor:

Purpose

The purpose of this guide is to offer information to Veterans who have been told they will lose a limb or for those who have already lost a limb. It is a resource intended to provide you with information about what to expect following surgery and to make you aware of the resources the Michael E. DeBakey VA Medical Center (VAMC) can provide you as you make this change in your life. This is only a general overview of the process, since each person's experience will be unique. This guide does not take the place of advice from a clinician who is treating your specific needs. It is meant to serve as a resource to answer questions you may have as you move forward. The medical personnel at VAMC are here to help you as you work through this challenge. Please let us know if you have questions or specific needs that we can help you with as we are dedicated to being there for you. As always, thank you for your service.

Table of Contents

Chapter 1 "I have been told I need an amputation"……4

Chapter 2 "What happens after surgery?"……12

Chapter 3 "What about my pain?"……17

Chapter 4 "Will I get a prosthesis?"……20

Chapter 5 "What will my prosthesis look like?"……22

Chapter 6 "How is a prosthesis made?"……24

Chapter 7 "What do I need to know about using a prosthesis?"……26

Chapter 8 "How do I learn to love my new body and will my partner love it to?"……29

Chapter 9 "What do I do after I have been discharged from therapy?"……32

Chapter 10 Common problems that can be avoided avoided……33

Chapter 11 Special considerations for Veterans with lower extremity limb loss……35

Chapter 12 Special considerations for Veterans with upper extremity limb loss……37
Contributed by Sasha Thomas,

Chapter 13 Recreation Therapy and the Amputee……39
Contributed by Jessica Dawson, RT

Chapter 14 Drivers Rehabilitation……41
Contributed by Kelly Anderson, RKT

Chapter 15 Preventing further limb loss through PAVE ……42

Glossary

Resources

Chapter 1

"I have been told I need an amputation"

There are many types of amputation surgery. Amputations are described by the level at which the surgery is performed. The surgeon determines the type of amputation you need. This is decided by looking at how severe your disease or injury is and weighing that against preserving as much of your limb length as they can. The different levels of amputation surgery are described below.

Lower Extremity Amputations

Amputation	Abbreviation	Description
Toe amputation		removal of the toe or toes
Transmetatarsal	transmet	a cut is made through the metatarsal or bones in the foot leaving most of the foot intact but removing all of the toes
Symes amputation		also called ankle disarticulation because no bone is cut instead the foot is removed at the ankle joint (where it articulates with the leg)
Below knee amputation	BK or BKA	also called transtibial because a cut is made through the tibia bone between the knee and the foot; the hip and the knee are saved and the foot is lost
Through-knee		also called knee disarticulation because no bone is cut; instead the lower leg is removed from the upper leg at the knee joint

Amputation	Abbreviation	Description
Above the knee amputation	AK or AKA	also called transfemoral because a cut is made through the femur bone between the hip and the knee; the hip is saved and the foot and the knee are lost
Hip disarticulation		the leg is removed at the hip joint (no bone is cut)
Hemipelvectomy		the leg and part of the hip/pelvis are removed

Upper Extremity Amputations

Amputation	Abbreviation	Description
Finger amputation		removal of the finger or fingers
Wrist disarticulation		the hand is removed at the wrist joint (no bone is cut)
Below elbow	BE	also called transradial because the radius is cut between the wrist and the elbow; the shoulder and the elbow are saved but the hand is lost
Elbow disarticulation		the lower arm is removed from the upper arm at the elbow joint (no bone is cut)

Amputation	Abbreviation	Description
Above Elbow	AE	also called transhumeral because the humerus is cut between the elbow and the shoulder; the shoulder is saved but the elbow and the wrist are lost
Shoulder disarticulation		the arm is removed at the shoulder joint (no bone is cut)
Four Quarter		Also called a scapulo-thoracic amputation; the arm and part of the shoulder is removed

Questions to ask your team

Remember that you are a member of the treatment team. In fact, you are the most important member of the team! This is why it is important for you to ask questions throughout your care starting with the surgeons and nurses on the surgical floor to your therapists and your prosthetist. This is a new experience for you and no one expects you to know everything so don't be afraid to ask! Here are some example questions to get you to start thinking...

- "Why do I need an amputation?"
- "What level amputation is planned for me?"
- "Will I need any more surgeries before I go home?"
- "What is expected of me after surgery?"
- "What is the plan to control my pain?"
- "What is my discharge plan?"
- "How can I prevent further surgeries or amputations?"
- "What do I need to do after I leave the hospital?"

Stages of grief

A lot of things will affect how you respond to an amputation:

- Why you needed the amputation,
- If you feel the surgery was successful,
- If you feel you can return to a "normal" life,
- How the amputation affects you financially,
- What kind of support you have,
- If you feel you have any control

With all these variables, it is not surprising that different people respond in different ways to having an amputation. Most people, however, go through some general stages of grieving. Losing a limb is not much different than losing a family member. You can go through the same stages of grieving. This is NORMAL and not a sign of a mental health problem or depression (we will look at signs of depression a little later). You may not go through these in the order presented and you may go back through a phase more than once, but if you keep working through it, then you can't do it wrong. The next page has a table with a description of the stages of grief and how they present.

Phases of Recovery from the Amputee Coalition First Step Guide

Phase	Characteristics	Thoughts & Feelings in this Phase
Enduring	Surviving amputation surgery & the pain that follows	Hanging on; focusing on present to get through the pain; blocking out distress about the future-it is a conscious choice not to deal with the full meaning of the loss; self-protection
Suffering	Questioning: Why me? How will I...?	Intense feelings about the loss: fear, denial, anger, depression; vulnerable & confused; return to Enduring stage; emotional anguish about the loss of self adds to the pain

Reckoning	Becoming aware of the new reality	Coming to terms with the extent of the loss; accepting what is left after the loss; implications of the loss for the future-how will roles change, ongoing process; minimizing one's own losses in comparison to others' losses
Reconciling	Putting the loss in perspective	Regaining control; increased awareness of one's strengths & uniqueness; more assertive; taking control of one's life; self-management of illness & recovery; changed body image; need for intimacy
Normalizing	Reordering priorities	Bringing balance to one's life; establishing & maintaining new routines; once again, doing the things that matter; allowing priorities other than the loss to dominate; advocating for self
Thriving	Living life to the fullest	Being more than before; trusting self & others; confidence; being a role model to others; this level of recovery is not attained by everyone

Not everyone makes it through all of the phases and gets to Normalizing or Thriving. Sometimes the grief, anger, frustration or sadness is too much to move past without help, and you are stuck. That is when you need help. There are several ways to get help here. We have a Peer Visitor program where an amputee who has been in your place can come and talk with you about your experience. He or she can share with you what it was like to be right where you are. Another place to talk to peers is VAST, the Veterans Amputee Support Team. VAST is a group that meets each month here at the hospital to talk about topics of interest to amputees and share stories. If you need a spiritual connection, let your team know and our Chaplain services can help. If you are feeling sad, anxious or out of control or just feel you cannot handle this, we can also consult our excellent mental health staff that would be happy to work with you to help get you back on the path to recovery. The next few pages have more information about the programs mentioned above including the time and place for the meetings and point of contact information. If you are struggling, please consider reaching out to some or all of these options. A positive attitude and motivation can make all the difference in a successful recovery.

VAST

Veterans Amputee Support Team

“Share Experiences,

Exchange Information”

Family and Friends Encouraged to Accompany for Support

Meets the 4th Wednesday of the Month

3:00-4:00

2nd Floor in the 2A Dining Room (2B-210)

For More Information Contact:

Rosa at 713-791-1414 x24034

Stacy at 713-794-7819

Lillie at 713-791-1414 x25579

Take control of your life with PALS

The Promoting Amputee Life Skills (PALS) course is an 8 session self-management course that helps people with limb loss learn skills to improve their lives. After amputation, people face physical and emotional challenges such as depression, anxiety and pain. These can seriously affect an amputee's quality of life.

PALS builds on the understanding that people with limb loss help each other overcome these issues. Program activities focus on teaching participants how to become good self-managers; and the course builds on participants' individual strengths as they learn new skills. As a PALS participant, you will have the opportunity to practice relaxation, guided imagery, problem-solving and communication skills in small group exercises that will help you build confidence in your ability to manage pain, anxiety and depression. These skills enhance relationships with family, friends and healthcare providers. The course also teaches methods to increase your networking capabilities and your use of community resources.

Empower yourself and gain confidence in your ability to manage your health and maintain active and fulfilling lives with limb loss.

What PALS participants have said:

- 95% would recommend PALS to a friend
- 78% said PALS was more helpful than a peer support group
- 73% said PALS was more important than other services available to manage limb loss
- 76% said it helped them improve quality of life
- 70% said it was helpful for managing their mood, reducing depression
- 58% said it helped them manage their pain

If you are interested in participating in PALS or have questions about the program, call Stacy Flynn at 713-794-7819.

Need Support?

Peer Visitor

Have another Veteran who has been through an amputation come and talk to you and answer questions only someone who has been there can answer. If you are interested, let anyone on your treatment team know you would like a visit or contact Stacy Flynn at 713-794-7819 (or 27819 from in the hospital).

Chaplain Services

MEDVAMC has a chapel on the 2nd floor near the red elevators open to all faiths. If you are unable to come to the chapel, your providers can request a visit from the chaplain services in your room.

Feeling Down?

Do you feel sad since your amputation? Is this sadness so severe you are finding it hard to interact in activities you would normally do? Are you withdrawing from your friends or family? It is normal to be sad after an amputation, but if this sadness is preventing your participation in life you may be depressed. If you are interested in talking with a mental health provider about your mood, let anyone on your treatment team know.

Feel Suicidal? Contact the Veterans Crisis Line immediately at 1-800-273-8255, press #1.

Chapter 2

"What happens after surgery?"

Starting Therapy

After the surgery, the goal will be to begin therapy the next day. Kinesiotherapy (KT) and/or Physical Therapy (PT) will begin working with you on mobilizing. This means being able to move from more "simple" movements such as rolling in bed to more "complicated" movements such as walking. It is really important to work on getting mobile right away to avoid complications such as phlebitis, pneumonia or contractures. Even those with upper extremity limb loss need to get out of bed with the assistance of a therapist and ensure they can safely walk and balance after their recent surgery. You will also be seen by Occupational Therapy (OT) who will work with you on ADLs or Activities of Daily Living. ADLs are activities you need to do each day to care for yourself such as taking a shower, brushing your hair, getting dressed and preparing a meal. Learning how to do ADLs can help you be more independent and safe at home. All 3 types of therapy (KT, PT and OT) will give you exercises that will help you stay strong and healthy. It is important you continue to do your exercises after you go home to maintain your strength to participate in your daily life and to use a prosthetic limb if you chose to use one.

Residual Limb Care

After the surgery, the limb that remains is called the "residual limb" although people call it many different things. Some people prefer to call their residual limb different things such as "stump" or "nub" while others give it a name ("Stumpy" or "Fred"). If it is your residual limb, you can call it whatever you want. There is no wrong answer when you are speaking about your body, however please keep in mind when speaking to other Veterans or people who have lost a limb that some find such words offensive. When speaking about someone you do not know about their limb, you can refer to the limb as their residual limb, remaining limb or just call it what it is (right leg, right arm) to be on the safe side!

To take care of your residual limb, you will need to shape the limb. This is done using a disposable compressive roll called Compressogrip early on so that if your wound drains on it or it tears on your staples, it can be easily thrown out and replaced. Your surgical team should put Compressogrip on your residual limb the same day as the surgery or the day after.

Compressogrip

Compressogrip not only helps shape the limb but it also helps decrease pain. Compressogrip should be worn as much as possible with the goal of 23 hours per day. Your therapist will teach you how to put this on by yourself so you can continue to use it when you get home. After your wound has closed and the staples or sutures have been removed, you are ready to get a shrinker. This is a more permanent garment made of a material similar to compression stockings. The shrinker takes the place of Compressogrip and should be worn 23 hours per day to help shape your residual limb and decrease pain. Your surgeon can put in an order for this through prosthetics after they remove your staples or sutures. If you have trouble obtaining a shrinker, you can contact the Amputation Rehabilitation Coordinator.

Shrinker

Flotech

Preventing Contractures

A contracture is a tightening of a muscle or muscles that occurs when someone stays in the same position too long. When someone has a contracture, the muscle becomes so tight that they can no longer move out of that position due to tightness. This can happen after an amputation surgery. The most common contracture seen is in the front of the hips because after surgery people spend more time sitting with their hip flexed or bent. If it gets stuck or contracted like this, it can be hard to stand all the way up. It also make it very hard (or sometimes impossible) to fit a prosthesis or to try and walk with it. Another common contracture is for the knee to get tight in the bent position.

Again, this is often related to not standing or walking. Having this contracture can also make it difficult (or impossible) to fit or use a prosthesis. Your team will educate and remind you about positioning in bed and in the wheelchair to prevent these contractures from happening. Your therapists will also give stretching exercises than can help prevent them. The most important thing will be to keep moving!

Someone with a below knee amputation will be fit with a plastic orthotic device to help protect your residual limb and prevent the knee flexion contracture. This device is called a Flotech. The device has padding on the inside and is held on with velcro. It is meant to be worn while in bed and has a belt to hold it up so that you can also wear it while walking. Wearing this is important to help prevent contracture in the knee and provide protection to your leg if it bumps into anything (or if you have a fall). Your therapist will teach you how to put it on. Your therapist will also order an elevating leg rest for your wheelchair to give support for your residual limb while wearing the flotech. Using the elevating leg rest will also help you keep any swelling in your residual limb down.

Elevating Leg Rest

Scar Massage

Once the wound from surgery (or incision) has healed you will need to do something called scar massage. This is different than the type of massage most people are familiar with that is done to help relax. This type of massage is done to help your skin remain loose and not get stuck in place after the surgery. Scar tissue may form under the incision where the cut was made and this may cause your skin to become "stuck down". Later when you are working with your prosthetist to get a good fit on your prosthetic limb, this "stuck" skin can cause pain. You need your limb to be flexible. To perform the massage you can use lotion if you want (a non-perfumed lotion) and using your fingertips move along the incision line giving firm pressure. Move your fingertips in all directions to be sure your skin can move in all directions (try to move up and down, side to side and in circles). Your therapist should review this process with you before you discharge home but if they forget, ask them to show you!

Healing

Many people want to know how long it will take them to heal. This is a difficult question for providers to answer because every Veteran is different. Some may heal quickly and be healed in just 4-6 weeks, however some take much longer and do not heal for months. Many things will affect healing. If you are diabetic, strict glucose control will be needed if you want to heal quickly. There is clear research that shows elevated glucose (blood sugar) causes slower wound healing. Good nutrition also improves healing. The body uses protein and other nutrients as the building blocks for the tissues it uses to close the wound. Keeping the wound clean is also very important. An infection will stop healing from happening. (See signs of infection below) Follow the instructions on dressing changes you are given at discharge. One unfortunate problem that can lead to a longer healing time is a dehiscence. This is when the incision (or wound from surgery) pulls open. We usually see this when the wound is infected or when there is a fall and trauma to the limb. Once the incision is open, the surgeons cannot close it again because it is no longer sterile (they would close the contaminate into your body when they close the incision). This means you will have to wait for the now much larger wound to close before being evaluated by Amputee Clinic. You want to avoid a dehiscence if you can, so watch for signs of an infection and avoid behaviors that may lead to falling. If you see signs of an infection, contact your surgeon. If you have lost your limb below the knee, wear your flotech device to give yourself protection in case you do have a fall or trauma to prevent dehiscence.

Signs of infection
Redness around the incision
Increased heat in the area
Increased/new or unexplained pain
Increased/new drainage from incision

Equipment

The VA can provide you with the equipment you will need at home when you are discharged. Common items needed that the VA provides are: walkers, shower chairs, transfers tub benches, grab bars, hand held showers, grabbers, wheelchairs, and ramps. Items are ordered based on what your providers determine you need after working with you and discussing your home situation. If any of

Shower Chair

Transfer Tub Bench

these items break or wear out, your Prime Care provider or the Amputee Clinic team can order replacements. If you are going to have to remodel your home, the VA has a grant that offers funding to assist with this. The HISA (Home Improvements and Structural Alterations Program) grant helps Veterans with both service-connected and non-service-connected disabilities receive assistance for any home improvement necessary for the continuation of treatment, disability access to the home and access to essential bathroom and kitchen facilities. Veterans can use HISA to pay for:

- Allowing entrance or exit from the Veteran's home
- Improving access for use of the bathroom and kitchen
- Improving access to kitchen and bathroom counters
- Handrails
- Lowered electrical outlets and switches
- Improving paths and driveways
- Improving plumbing/electrical work for dialysis patients

Rolling Walker

The grant is a one-time grant, so be sure if you apply that you are not planning to move or that you will not need the funds in the future. To request the grant, talk with your doctor about putting in a consult. After the consult is entered, you will receive a package that explains the process for obtaining the grant money. This includes filling out some forms and getting quotes from contractors for the work you want done. If you need assistance completing your paperwork, contact the Prosthetic Services department or ask your social worker for help.

Rollator

Maxi Rollator

Role of VA Social Worker:

VA Social workers facilitate communication between the patient, their family, physician, therapist and other health care professionals. VA Social workers help plan for your discharge and long-term recovery after surgery. In their role of discharge planning, VA social workers help coordinate for safe discharge, whether returning to home, other rehab, or community nursing facilities. You may also meet with a social worker to determine if you need any additional support at home, such as “meals on wheels”, or services that may be able to assist with managing activities of daily living, and explore transportation options. VA Clinical Social workers can listen, provide counseling, emotional support to those affected by limb loss. Social workers can also serve as advocates in efforts to obtain needed services.

Locating a Social Worker (Inpatient vs Outpatient)

Your access to a social worker depends on if you are inpatient or outpatient. VA Social workers are under the Social Work Service Care Line, but are assigned to the various care lines/specialties throughout the hospital. The physician under which you are receiving the care, or assigned clinic at the time impacts what social worker you will be assigned to . For example, If you are inpatient on Rehab, you will see the Rehab Social Worker. If you are outpatient receiving continued therapies ordered by a PM&R physician you will continue to meet with the Rehab Social Worker. If in doubt about the assigned social worker ask the hospital or clinic staff what social worker is assigned to their area. You may also contact the Social Work Service office for clarification (24157).

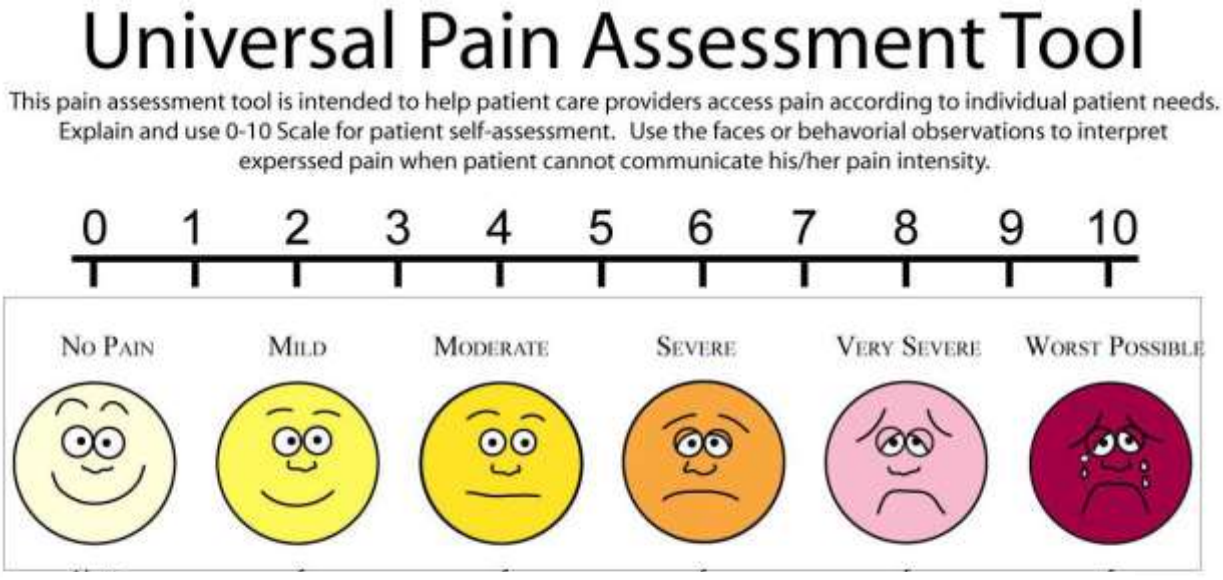
Chapter 3

"What about my pain?"

After most surgeries patients have pain. Amputation surgeries can be a little more challenging when it comes to pain management because amputees experience different types of pain that need to be addressed in different ways. You will also find as you progress through your care that different things can cause these pains. This chapter is going to talk about the types of pain, things that may cause it, and how to get treatment.

First we must talk about rating pain. You will find throughout your care clinicians will regularly ask you to rate your pain and describe it. This is because clinicians cannot feel what you feel and to best treat your pain they need to know how severe it is, and what the pain feels like. The description of the pain can help the clinician determine what is causing the pain and best treat it. Rating the severity of the pain can help the clinician determine the how to dose the treatment. It also helps determine how effective the treatment was by having you rate your pain again after the treatment to see the improvement. Please keep this all in mind during your treatment as you are asked about your pain over and over. Although this may be annoying to you, the staff does this because they care about you and want you to feel better.

Use this scale to rate your pain.



Types of pain

Surgical: Surgery of any kind is a trauma to the body and this is painful. This pain is usually sharp and sometimes throbbing. Surgical pain is temporary and can be managed with medication. Be sure to communicate clearly with your surgical team (physicians and nurses) about your pain to help them manage it effectively.

Nerve: If you are diabetic you are likely familiar with nerve pain. Many diabetics have neuropathy which is a nerve pain. Many people with limb loss have a different type of nerve pain, phantom limb pain. This is the feeling of pain in the limb that has been amputated. It is often described as a feeling of cramping, aching, or burning in the missing limb. This can be accompanied by phantom sensations which are also sensations in the missing limb, but these are not necessarily painful. Those who suffered from chronic pain or pain for a long time in the amputated limb are more likely to have phantom limb pain. Fortunately the pain usually decreases over time and most amputees do not have phantom limb pain after one year post surgery. Phantom limb pain can be aggravated by many different irritants but typically the pain is worse at night when there are no distractions. Nerve pain can be treated with medication, compression (such as compressogrip or a shrinker), massage, TENS (nerve stimulator), biofeedback, relaxation and/or distraction. Not every treatment is effective for each person so sometimes you will have to try a few options before you pain is best managed. Work your doctor to find your best treatment option. If you and your Primary Care Provider are unable to manage the pain you could ask for a referral to the Amputee Clinic or the Pain Clinic to see clinicians who specialize in treating difficult pain.

Muscle: Your residual limb may experience muscle pain as it gets used to the new attachments to your bone after surgery. You may also have muscle pain in the residual limb as you begin to learn to use a prosthesis because your muscles will have to work harder and longer than they have in a while. You will also likely get muscle pain in your back and hips as your body gets used to your new movement patterns. These pains will feel like cramping or achy and can usually be treated with hot showers or a heating pad. If your pain is not relieved with heat, you can talk to your physician about medications that can help relieve your pain.

Skin irritation: Skin irritations can occur from wearing liners, shrinkers or prostheses. You can have ingrown hairs, dermatitis (allergic reaction), heat rash, or fungal infection (such as athletes foot). Most of this can be avoided with proper care of your limb (wash daily) and your prosthetic accessories (see Chapter 7). If you do develop skin issues, contact your doctor to get topical treatment. You will likely need to stop wearing anything on your limb until the issue clears.

Residual Limb: There are many causes for pain in the residual limb. Early after surgery, pain can be an indication of infection. If you think you may have an infection, see Chapter 2 for signs of an infection. Another cause is an adherent scar. If you have not done your scar massage and the scar tissue at your incision is not mobile, you can have pain when you try to move your limb around. The best thing to prevent this is to ask your therapist about scar massage if they forget to teach it to you after surgery! If your scar does become adherent, you will need a large amount of massaging to break up that tissue. You can also get residual limb pain from a poorly fitting socket on your prosthesis or not using socks properly (see Chapter 7 about sock use). If your prosthesis isn't fitting correctly, see your prosthetist. If he or she is not able to fix it, then request an appointment with the Amputee Clinic to either have them fix your prosthesis or order a new one. You can get an Amputee Clinic appointment with a consult from your Primary Care Provider or by calling the Amputation Rehabilitation Coordinator.

Chapter 4

"Will I get a prosthesis?"

At MEDVAMC, the Amputee Clinic Team will make the decision if a prosthesis will work for you. The decision is based on your medical condition(s) and how they will affect your ability to use a prosthesis (or artificial limb). A prosthesis is a tool and will only be useful to someone who has the strength, range-of-motion, endurance and memory to make it work. There is not a prosthesis that will walk for you or pick up a cup for you. You have to use your own muscles to make the tool work. For this reason, you must have good joint range and muscle strength to manipulate the prosthesis. You will also need a good memory and cognitive (or ability to think) skills to help you learn how to use these complicated devices. Lower limb amputees will need to have good heart and lung function to be able to adapt to the increased energy it takes to walk with a prosthesis. The Amputee Clinic Team will look at your medical history and do a physical exam to help determine if you can use a prosthesis. Sometimes you are not a candidate at the time of the clinic evaluation but you can participate in exercises to improve your health to become a prosthetic candidate. Unfortunately, sometimes people have a condition that cannot be improved and they will never be able to use a prosthesis.

If you are unable to use a prosthesis, you can still participate fully in life. If you are having trouble participating in your daily activities or hobbies, let your providers know. Physical, Occupation or Kinesiotherapy can be ordered to help you learn to participate in your daily life activities using a wheelchair or walker or without the use of your missing limb. A recreational therapist can work with you to help you return to your hobbies and/or return to participating in community activities. Lack of a prosthesis does not mean a lack of quality of life.

If I don't get a prosthesis, will I get a power chair?

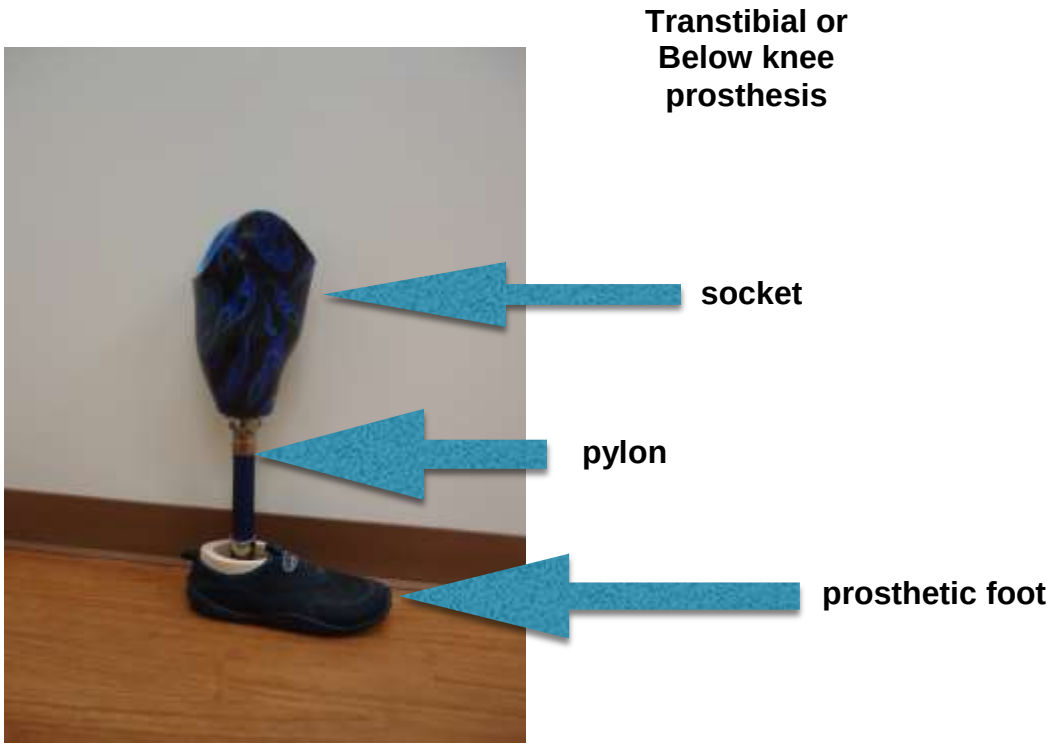
Many people believe that if they are unable to use a prosthesis they should get a power chair. First it is important to differentiate the two types of powered mobility: the scooter and the power chair. The scooter is a larger device that is used for participation in the community. They come in 3 or 4 wheeled models and are not intended to be used inside the home. This device is prescribed for someone who is able to walk short distance or use a manual wheelchair for short distances (such as inside the home) but does not have the endurance or strength to walk or push a wheelchair in the community. This allows the person to still mobilize on their own as much as they can but also give them access to the community. A power wheelchair is a smaller device that is prescribed for someone who is unable to walk or propel a wheelchair in their home. This device is reserved for individuals who are the most disabled because it does not require the user to exert any energy for mobilization. This puts the user at great risk for further deconditioning and weight gain, which can lead to further medical issues. The goal of

the Amputee Clinic Team and the Rehabilitation Department is to maximize the Veteran's function with participation in their mobilization as much as possible to ensure access to their homes and community by providing the correct device for the Veteran.

Chapter 5

"What will my prosthesis look like?"

What your prosthesis will look like will depend on the type of amputation you have and the type of prescription written for you in Amputee Clinic. There are many different ways for a prosthesis to be held on to your limb and many different types of components that can be ordered depending on your needs. Every prosthesis will have a socket that is made to fit your limb. The socket can be made with a few different materials and may have a flexible inner liner. Again, these are determined based on your activities, abilities and your limb. The rest of the chapter will show pictures with labels of some examples of some typical prosthetic limbs but please keep in mind this in not all inclusive and is intended to only give you a general understanding of what your limb could look like. If you want your prosthesis to look more like your other leg or arm, something called a cosmetic cover can be put on once the prosthesis is complete and we know that no more adjustments need to be made. This cover can be made to match your skin tone and will be shaped to look like an arm or leg. For arm or hand prostheses, many use a hook as their terminal device or hand however there are many options that are more cosmetic (look more like a hand) if that is what you want.



Transfemoral or Above knee prosthesis

socket

prosthetic knee

pylon

prosthetic foot

Harness

Arm cuff

Socket

Cable

Hook or terminal device

Chapter 6

"How is the prosthesis made?"

Different prosthetists may choose to make the prosthesis a little bit differently but the overall process is the same.

Model of Transfemoral or Above Knee residual limb

First they will get information about your residual limb to make a model of it. Some prosthetists take measurements and use this to make the model. Others will use a scanner to get a computer image of your residual limb. Many of them will use plaster to make a cast of your residual limb that will be filled to make the model. Once he or she has a model of your residual limb, they make some adjustments to the model to accommodate for how your limb changes shape when your muscles contract or when you move from one position to another (sitting to standing or from your arm at your side to over your head).

Next a clear plastic is pulled over the model of your residual limb making a "test socket". This socket is made with clear plastic so your prosthetist can see how your limb looks in the socket. This type of plastic is also easier to make adjustments to than the material that will be used for your final socket. This is the time for you to tell your prosthetist about any painful spots because they can still be easily adjusted in this test socket. Sometimes you will need more than one test socket. BE PATIENT!! If you rush this step and agree to a socket that does not fit, you will not be able to tolerate using it later. It is very important that you are honest and direct and communicate any concerns with your prosthetist in order to get the best fitting socket.

Test Socket

Once your prosthetist has determined that you have a good fitting test socket, they will use this mold to make your final socket. The way they make the socket and the type of material will be based on the prescription that you and the Amputee Clinic Team provided. Once your final socket is made it will be fit to the rest of the components that were ordered to make your prosthesis. Your prosthetist will then need to align the device for your body. Again, it is important that you are upfront and honest with your prosthetist about getting the alignment right so you can use the limb to its fullest potential. If your socket doesn't fit or the limb is aligned incorrectly, you will have trouble using the prosthesis, participating in therapy and will end up having to go back to your prosthetist. This will take more time. Again, be patient.

This can sometimes be a long process but once you have a well-fitting prosthesis that you have learned how to use with therapy, it will all be worth it!!

Chapter 7

"What do I need to know about using a prosthesis?"

Taking it home

For your first prosthesis, when it is complete your prosthetist will give your limb to the Physical Therapy Department before you take it home. Your therapist will clear you to take the limb home once you have shown that you can put the limb on correctly and can use it safely. For an upper extremity prosthesis this many mean simple activities of daily living. For a lower limb amputee this will mean being able to walk a short distance with a walker. This does not mean therapy will stop, just that you can take the limb home to begin practicing there. When you take the limb home, your therapist will give you a wearing schedule to avoid developing wounds or bruising on your residual limb. You will start wearing the limb one hour at a time, multiple times a day. You and your therapist will increase wear time in your schedule depending on how your residual limb is doing.

How to put it on

Different prosthesis will be put on different ways. There are many different ways to keep a prosthesis on, this is called the suspension. How you put your prosthesis on will depend on your type of suspension. Your prosthetist will teach you how to put it on first and then you will practice this in therapy until you become very good at it. Putting the prosthesis on correctly is vital to the limb functioning properly and not causing any skin irritation or wounds.

Cleaning a liner

You should get 2 liners with your prosthesis. This is so you may clean your liner each night when you remove it and leave this liner to dry the next day. This means you wear each liner every other day. When you remove your liner at the end of the day, turn it inside out and wash it with a mild soap (anything that is not scented, preferably anti-bacterial). You may pat the inside dry with a clean towel but do not rub it. Turn the liner right side out again to dry either on a drying rack, if you were provided one, or on a 2 liter bottle or pole (broom stick, etc.). Allow the liner to dry all the next day while you wear your other liner. Never put the liner on wet. This can cause a fungus similar to Athletes foot to grow on your residual limb. Once a week you can clean your liner with alcohol to help keep down the odors that come from wearing the liner close to your skin in the hot Houston weather. Do not use alcohol more than once a week because it may damage the material in the liner.

Skin care with a liner

Be sure that just like cleaning the liner each day, you are also cleaning your residual limb with a mild, non-scented, anti-bacterial soap. You can do this at the end of the day or in the morning. Just be sure your limb is completely dry before you put your liner back on. If you are having trouble with sweating inside your liner, antiperspirant can be used on your residual limb. A non-perfumed, long acting antiperspirant (not deodorant) is recommended.

Using socks

Prosthetic socks are used to help amputees manage any volume fluctuations. It is normal for anyone to have some change not just from one day to the next but even within the same day. If this sounds hard to believe, think about how many times you have had to tighten or loosen your shoe laces in the afternoon after a day when they were perfectly comfortable all morning. Shoes are actually pretty soft so think how important it is to be able to address this when you are wearing a hard socket!! What we eat, how active we are and many other factors play a role in our volume throughout the day. That is why it is important that you keep a supply of socks on you at all times. As fluid is pushed out of your residual limb as you walk during the day, you will use these socks to fill the space left behind. The socks have different thicknesses called ply. Common sock ply are 2, 3, and 5. Multiple socks can be worn together as needed to fill the space (may need one 2 and one 5 for 7 ply total). The ply are labeled on the outside of the socks and are usually color coded. Your therapist will help you learn how to change socks, how to tell when it is time to add one, or how to tell if you have added too many.

When to stop wearing the prosthesis

Anytime you have redness after removing your prosthesis that lasts more than 20 minutes, you need to stop wearing the limb and contact your prosthetist to have adjustments made to improve the fit. If you develop any type of wound (an abrasion, a blister or an open sore), even if the wound was not caused by the prosthesis, you need to stop wearing the prosthesis. Wounds cannot heal if they are under pressure because it affects blood flow to the area. You will need to wait for the wound to completely heal before you can return to wearing your prosthesis. If the wound does not heal within one week you should consult your therapist or doctor to have it looked at. Even if the wound is not infected, they may be able to do something to help it heal faster and get you back in to your prosthesis sooner. If the prosthesis did cause the wound, call your prosthesis and let him or her know. When you are healed or close to healed they will want to see you to make adjustments to the prosthesis to prevent future wounds. If at any time you are not sure if you should wear the prosthesis or not, stop wearing the prosthesis and contact your therapist or prosthesis to help you decide (better safe than sorry).

When to call for help

If you are having trouble with your prosthesis that you cannot resolve on your own, you need to call for help. If you are having skin irritations or wounds you need to stop wearing the prosthesis and call your prosthetist or therapist. If you are having problems related to pain, you should start with your prosthetist and if they cannot resolve the problem then follow up with your doctor. If you are having trouble getting your prosthesis to fit correctly DO NOT make your own repairs. Prostheses are very expensive to make, if you damage a component trying to fix it, we cannot repair it under warranty. If you damage the socket in an attempt to make a repair, the socket could be ruined and a new one may be needed. If you have destroyed a part of your prosthesis without consulting the team, we may choose not to replace the part for you! Any problem that persists or re-occurs needs to be addressed by our team to help you have a healthy well maintained residual limb. Do not let problems continue until the next follow up, have them addressed ASAP.

Damage to the prosthesis

Some limbs have special care needs such needing to be charged or having to keep it dry. Your prosthetist will tell you of any special instructions for your limb. All limbs are a medical device and need to be treated as such. This means they need to used only for what they are intended for. Using an arm intended to be used in an office setting to work out at the gym or trying to run in a water leg will likely result in damage. Be sure when you are not wearing the limb that it is stored in an area safe from weather hazards or damage from others. If the limb is damaged by you or someone on your behalf attempting to make repairs, the VA may not repair or replace the limb. DO NOT MAKE YOUR OWN REPAIRS. Contact your prosthetist for any adjustments or repairs. For more information on the proper care of your prosthesis, ask your prosthetist and/or your therapist.

Shoes

If you are a lower limb amputee, the type of shoe you wear can be important. If you are diabetic, you should be wearing diabetic shoes to protect your sound limb. Unless you have a specific prosthetic foot made to adjust to different shoes, you may have trouble if you change the shoes you use with your prosthesis. Changing shoes can change the heel height which will change the alignment of your prosthesis. This occurs because the prosthetic ankle is at a fixed angle. Changing shoes with different heel heights can make it difficult for you to walk and can even cause a wound. If you know you are going to change shoes a lot, discuss this with the team in the Amputee Clinic so that you can get a prosthetic foot that can adjust. If you want to change between 2 pairs of shoes with similar heel height bring them both to your prosthetist

and see if they can be changed out without affecting the alignment. If their heel height is similar, you may be able to use them both.

Chapter 8

"How do I learn to love my new body and will my partner love it too?"

Body Image, Relationships and Sexuality after Amputation

Original article by Sandra Houston, PhD

First Step - Volume 4, 2005

Translated into plain language by Helen Osborne of Health Literacy Consulting

Amputations affect our lives in many ways – our body image, relationships, and even sexuality. Here is information about these issues along with ways to deal with them.

Body Image

We all think about how we look. Starting as children and throughout life, we have thoughts and feelings about body image – our shape, size, and other physical attributes (such as hair, teeth, and skin).

Our body image changes as we go through life. Sometimes our body image suffers when we see a movie star or fashion model and think we need to be just as thin or pretty. Our body image can suffer even more after an amputation.

As amputees, we not only have to deal with changes in how our body works and feels but also how it looks. The more that we focus on what is missing – not just the limb, but also the things we could do before – the more likely we are to get depressed and angry. In fact, studies show that when amputees have a negative (bad) body image, they are less apt to be happy with life.

It does not have to be this way for you. Most amputees are well-adjusted and lead happy and full lives. Here are some ideas of things you can do:

- Know that you are still the same person inside that you were before the amputation. It may help to think of yourself as a whole person who just happens to have a missing body part.
- Focus on learning new ways to do things you enjoyed before. But sometimes you may need to be extra clever or creative.
- Don't limit yourself with the label of "disabled." The focus should no longer be on what is gone, but on the future.
- If you are learning to use a prosthesis, your body image is likely to change once you feel more comfortable with it. You will know this is starting to happen when you begin to feel naked without it!

Relationships

Relationships come in many forms. We can be very close to some people and just friends with others. No matter what kind of relationships we have, they almost always improve the quality of our lives.

People without relationships often feel lonely, isolated, sick, and depressed. When people have no one to talk with or nothing to distract them, they may think only about their problems and pain.

Some amputees avoid relationships because they are so worried about body image that they think other people won't like them. They may fear rejection and stay away from friends, relatives, and even strangers. But this fear is seldom true. Studies show that being an amputee is no longer a cause of rejection. An example is Heather Mills (an amputee) who used to be married to Paul McCartney (a former Beatle).

Relationships help make us feel whole – both emotionally and physically. But this does not mean you always have to be part of a crowd. Here are some ways to have healthy relationships:

- Stay involved with people you already know and share feelings for.
- Join an amputee support group where you can meet other amputees who live full and happy lives. This way, you can know that you can do the same.
- Talk with important people in your life about your feelings as an amputee. This includes feelings of anger, fear and frustration. It also includes how the other person feels now that you are an amputee. Your relationship is likely to be stronger after open and honest conversations like these.

Sexuality

We are all sexual beings. This term refers to all the ways we express loving feelings and emotions. Our whole body responds to sexual attraction. Sexuality includes feelings of arousal (expressed by touching, kissing and caressing) as well as sex (sexual intercourse). Touching and being touched are basic human needs. In fact, studies show that babies who do not get touched a lot develop later than those who do.

Some amputees say that limb loss limits their sexuality. This can be due to a negative body image. It can also be because people fear they will be rejected by their spouse or partner. It is important that you talk together about how your changed body looks, feels, and works. Talking about this now can help prevent misunderstanding or hurt feelings later on.

Our sensuality and sexuality always begin with us. Here are some things you can do:

- Focus only on the sensations of pleasure that you feel at the moment. Do not keep thinking about how you want to perform.
- Alternate between focusing on your partner's pleasure and your own sensations of arousal.
- Give yourself permission to try new ways of being sexual. After amputation, you may want to find new positions that are more comfortable. For instance, you could add some pillows if you have problems with balance.
- Explore and enjoy finding out ways that work best for you and your partner. Amputees all over the world have returned to loving, sexual relationships after their amputation. You can too. This will help with your body-image, relationships, and sexuality.

About the Author

Sandra Houston, PhD, is a clinical psychologist and retired professor of psychology from the University of Central Florida. She had a private practice for 30 years, specializing in marriage and sex therapy. She has been a hip-disarticulation amputee since 1982. With over 50 professional publications and presentations, she continues lecturing and writing in the field of rehabilitation psychology.

Chapter 9

"What do I do after I have been discharged from therapy?"

After you graduate from therapy, you will still have regular follow-ups with the Amputee Clinic Team. Depending on the complexity of your injury and your needs, you will be scheduled for a regular follow-up every 12-18 months with the Amputee Clinic. This follow-up is to ensure that your limb is without any wounds or skin irritation and that you are still satisfied with your prosthetic device. This is the perfect time to share with the team if your device is not keeping up with you (you feel the prosthesis is holding you back). The field of prosthetics is constantly changing and improving so things may have changed in the past year and there may be something newer available that can meet your specific need. If you need to be resupplied with liners, sleeves or socks in between your Amputee Clinic appointments, you can contact the Amputation Rehabilitation Coordinator (ARC) or your prosthetist to request them. Minor repairs can be done as well. However, if you need major parts replaced or a new socket before your next follow-up, you will need to come see the team earlier. You may also need to come sooner if you are having other problems such as wounds or pain in your residual limb. Contact the ARC or your prosthetist and you can be scheduled for an appointment in the Amputee Clinic to get what you need.

If you do not come for regular follow-ups, the team will not know how you are doing or if you may have a wound/problem. For this reason, the team will not continue to supply refills on things like liner, sleeves or socks if you do not regularly follow-up. It is similar to your Primary Care Physician needing to see you each year to refill your medications. Our team needs to know that your limb is healthy to continue providing supplies. We know you are busy and many of you may be traveling to come to Houston for the visit but these regular follow ups are important or we would not ask you to do them!!

Remember that the VA also provides online assistance to Veterans and secure messaging through My HealtheVet. If you are not using this service and are interested in enrolling, go to www.myhealth.va.gov to sign up.

Also, remember that being discharged from therapy does not mean that the MEDVAMC team is no longer working for you. You may contact the ARC or your prosthetist here with problems related to your care when you need them. We are going to be here for you for the rest of your life.

Chapter 10

Common problems that can be avoided

Contractures

A contracture is when the soft tissue (muscles and tendons) in a joint become so tight that you can no longer move through your full range of motion. This happens regularly in amputees because they tend to stay in the same position for extended periods of time without stretching. For lower extremity amputees it is a problem because many are either sitting or lying down most of the time and no longer standing or walking regularly as before surgery. The muscles in the hip and knee are in the bent position for so long they become tight and stay that way. This is why you are encouraged to wear the Flotech device mentioned earlier in the guide if you are a transtibial amputee (or below knee) and to also spend time lying on your stomach to stretch your hip. You should also walk with a walker at home as much as possible if you have been cleared by your therapist to do so. If you are an upper extremity amputee, you may find yourself keeping your elbow bent now that your are not using your hand for tasks. This can cause the muscles in that joint to become tight and develop a contracture. You need to be sure that you move your elbow through the full range of motion regularly. If you do develop a contracture, it can become difficult or impossible for us to fit you for a prosthesis. It is important that you follow the home exercise program your therapist gives you at discharge to avoid developing a contracture.

Deconditioning

After an amputation surgery, your activity level can change because you many no longer do things the way you did before. It is important that you remain active and participate in activities even if they are modified. You can participate in the home exercise program provided by your therapist, walking if you have been cleared, and performing self-care activities such as showering and preparing food for yourself. You may even participate in adaptive sports with our Recreational Therapist (see Chapter 13). Continue to interact with your friends and family as you did before. These activities will help your muscles stay strong. Remember your heart is a muscle too and needs to be worked out! If you stop being active, your heart will get weaker and you will not be up to the task of walking with a prosthesis which will limit your future!!

Depression

Participating in the activities above will also help combat depression. Remaining active physically and socially rather than isolating yourself will help you cope with your surgery. If you still find you are having trouble coping, know that the VA has many resources for you. You can ask for a Peer Visit from another Veteran with limb loss who has been where you are and can

share your experience. If you feel uncomfortable with a peer visit or feel it may not be enough, we have excellent mental health staff we can refer you to who can help you better cope with the changes you are feeling. You can also participate in the PALS (Promoting Amputee Life Skills) class to learn about dealing with day-to-day issues as an amputee. Just know that it is normal to be sad about your loss but if you are too sad to continue to participate in your daily life, please ask for help. If you are feeling suicidal, please contact the VA's Crisis Line for help at 1-800-273-8255, press #1.

Pressure ulcers/wounds

If you are wearing a prosthesis that does not fit well, it can cause something called a pressure ulcer. These are also commonly called bed sores because they often happen when someone is confined to a bed. This is a wound that forms when pressure is applied to one area of the body for too long and blood flow to the skin is cut off causing the skin to die. This can happen when the socket is pushing or rubbing on your residual limb. If you don't feel the pressure and don't do regular skin checks, a wound may form without your knowing it. This can also happen if you do not add socks when needed, and you have too much pressure on the end of your limb. All wounds are serious and need to be addressed right away! The best thing to do is to avoid them by doing regular skin checks and wearing socks when needed.

Chapter 11

Special considerations for Veterans with lower extremity limb loss

Back pain

Back pain is a common complaint for people with lower limb loss. There are several reasons for this. A very common one is that the prosthesis is not adjusted correctly and is either too short or too long and therefore the person has limbs that are not the same length. This can lead to an imbalance in the back and back pain due to poor walking form, both with and without the prosthesis. Hopping without an assistive device (walker or crutches) when not wearing a prosthesis is very hard on the back and can also lead to back pain. Hopping when walking with the walker rather than swinging through can have the same effect. Many Veterans are eager to get rid of the walker and walk with a cane or no device at all before they are ready. This leads to poor form with walking without a full weight shift onto the prosthesis; this can also cause back pain. Lastly, weakness in back and abdominal muscles can lead to back pain in anyone whether they have had an amputation or not. Amputees who decrease their activity level are even more likely to have weakness in the trunk or core muscles and need to strengthen their back and abdominal muscles to decrease their back pain.

Knee arthritis

The poor walking habits mentioned above (hopping and walking without the walker too soon) cause extra stress to the other or sound limb. This can lead to knee arthritis on the other side and sometimes be the limiting factor long term on how well you walk. Many older amputees find their prosthesis to be their "good" leg as their sound limb can deteriorate over time. Keep in mind that 50% of amputees who lose their limb lose the other within 5 years due to this overuse so although you don't want to get arthritis, overuse can lead to even worse consequences!!!

Falls

Falls are common in lower extremity amputees. There are many reasons for this. A few of them will be mentioned, however the point of this discussion is to get you thinking about falls and make you aware that you need to actively work to prevent falls. In therapy you will learn about ways to prevent falls. Take these lessons to heart. Falls can lead to further injuries that can make your recovery much more difficult and slower. Don't be another falls statistic!!! Common fall reasons: woke up in the middle of the night, forgot about the surgery and put their absent foot down to stand on; forgot to lock the brakes on the wheelchair; stands by

pulling on the walker rather than pushing up from wheelchair; hopping without an assistive device.

Obesity

Obesity occurs when you put more fuel (food) in your body than it needs for the activities you participate in. While it is true that an increase in activity allows you to be able to eat more, the reality is that maintaining a healthy weight starts by eating reasonable portions of a well balance diet. We have all heard about eating healthy our whole lives, however for an amputee weight is even more important. We discussed earlier the amount of energy needed to use a prosthesis is much higher than to walk without one. If you are overweight or obese, you must expend even more energy! If you are too obese, we may have trouble finding components rated for your weight and may not be able to build you a prosthesis you can use safely. It is also important once you are fit, that you maintain eating a healthy diet to prevent weight gain because your socket will no longer fit if you gain weight. There is a walk-in nutrition clinic to help you learn more about eating healthy and the VA also has a weight loss program called the MOVE program that any provider can refer you to if you feel you need help.

Chapter 12

Special considerations for Veterans with

Upper extremity Limb loss

UPPER EXTREMITY DIFFICULTIES BEFORE YOU ARE FITTED WITH A PROSTHESIS

Activities of daily living

Achieving independence one-handed with self-feeding, dressing, toileting, grooming/oral hygiene, and bathing from the beginning is very important. It is necessary to start this process as soon as possible to ease any frustrations and fears throughout this rehab process. You may require adaptive equipment to assist you in these areas. Once you have mastered the basic activities of daily living, you will be trained in more complex ADLs such as simple meal prep, laundry, etc. Using adaptive techniques and equipment may be very useful in this area as well. Keep in mind that not all equipment may be used in all environments.

Overuse injuries

Prior to receiving your prosthesis, you may rely on your unaffected arm more than you have in the past. You may develop an overuse injury. So, what is an overuse injury? These are injuries that occur overtime, resulting from micro-trauma to joints, tendons, ligaments, or bones. It is important to know the signs and symptoms of an over use injury. They are as follows: pain with movement, pain during or after a repetitive task, decreased range of motion, decreased strength, swelling, and muscle ache. Commons treatments for these injuries are rest, ice, anti-inflammatory medication, and physical or occupational therapy.

Psychological issues

Losing a limb can be life changing. Processing through this can take time. Having support from family, friends, and your rehab team can be helpful when dealing with loss of limb, fear, self-esteem issues, changes in work, uncertainty about the future, etc.

Change in hand dominance

For those whose dominant hand was amputated, change of hand dominance can cause frustration. Most amputees will want to wait until they are fitted with a prosthesis before attempting this task. However it important to master this task one handed to ensure independence in this area because you may not always have your prosthesis. Keep in mind that there will be time spent on becoming proficient using both hands.

UPPER EXTREMITY DIFFICULTIES AFTER YOU ARE FITTED WITH A PROSTHESIS

I have this new prosthesis. What other challenges do I have to look forward to?

Once you are fitted with your prosthesis, please know that this will not be the only fitting. You will develop a relationship with your prosthetist. You will see him/her many times to get the prosthesis just right for you. It can be frustrating but don't give up. It does get better. You will become knowledgeable about how the device works and what needs to be done when it does not. You will require training on how to properly put on and take off the device. You will also learn how to adequately care for the device.

Once you have mastered the above, now it's time to learn how to use the prosthesis. In order to make this possible, you must learn how to operate the individual components. After mastering the individual components, you will learn how to use them together to complete a simple task, followed by one more complex.

Some upper extremity amputees use their mouth and teeth to help with tasks they used to do with their hand. If you find yourself doing this, you will need to be followed closely by a dentist to ensure you do not damage your teeth or jaw with your new uses for them.

Chapter 13
Recreation Therapy and the Amputee

What is Recreation Therapy?

Recreation Therapy is a treatment of services designed to restore, remediate, and rehabilitate a person's level of functioning and independence in life activities, to promote health and wellness as well as reduce or eliminate the activity limitations and restrictions to participation in life situations caused by an illness or disabling condition.

Will I Be Able to Do Everything that I did before?

Having an amputation is a life changing event for many veterans. While one may wonder, "Will I ever be able to do everything I did before", it is important to know that from swinging a golf club, to riding a bicycle, or surfing the internet on your IPAD, active and sedentary leisure pursuits may appear difficult, often requiring extra care and adaptations. The Amputee Clinic is staffed with a Recreational Therapist to assist you as you develop your ability to use your prosthesis or to learn new avenues through the development of a leisure plan of action. This plan of action affords the veteran:

- Specific programs, organizations, and resources
- An extensive resource guide for adaptive recreation and community reintegration in the surrounding Houston area. (***Consult with any therapist to obtain a guide***)
- Introduction to non-traditional adaptive leisure resources and trainings in the community
- Annual participation in VA national sporting events and clinics or daily recreational involvement.

The Benefits are Endless…….

Some of the many benefits of active involvement in your recovery process include:

- Reduction of secondary medical conditions
- Reduction of dependency on pain and depression medications
- Stress reduction
- Increase in self-esteem and normalcy
- Increased Independence
- Improved physical, cognitive, social, and emotional functioning
- Increased effectiveness of goal attainment

Travel

If you plan to travel, remember that you may need to pack things now that you did not before. If you are a prosthetic user be sure you take everything you need to clean and don your device. Take plenty of socks even if you normally don't need them. Changes in location, weather, diet and activity level are common with travel and these can significantly affect your volume. If you are traveling by air you may want to visit the TSA website to view the rules for going through security when wearing a prosthesis, using a wheelchair or an assistive device like a walker or crutches make may the trip less stressful. If you are traveling by train or bus, call ahead or check their website to look for any information for traveling with disabilities with their company. If you are staying in a hotel, be sure you are getting a room that has what you need (first floor if you prefer, accessible bathroom, etc.). If you travel regularly and do not want to rely on hotels to provide equipment, there are travel tub benches you can order on the internet. For specific travel concerns, you can ask your therapist, travel agent or service provider depending on the concern. Just remember, the more you plan, the more you can relax on your trip!

Chapter 14

Drivers Rehabilitation

Basic Requirements:

1) Possess valid driver license (any state) or a Texas Driving Permit.
2) Meet visual requirements of State of Texas of 20/40 or with visual clearance form.
3) No seizure activity in 6 months.
4) A1c =>8.

State of Texas Issues:

1) L lower amputation – no reporting requirement
2) R lower amputation should report to DPS for testing:
    a) L foot accelerator
    b) Hand controls
    c) Prosthesis for driving
    d) Cross-over driving (some stations will allow this testing)

VA Driver Rehabilitation Program:

1) Open to all veteran amputees for assistance with training, licensure recertification and equipment recommendation.

Auto Adaptive Equipment Provision:

1) No VA assistance with driving equipment for veterans who have not received the auto grant. If veteran is not an auto adaptive equipment recipient, he or she is solely responsible for cost of equipment and installation.

Obtaining Application for Persons with Disabilities Parking Placard/or License Plate:

Application has to be signed by a Licensed Medical Professional. In most cases the physician's office or social worker can locate the form, however patients are able to download the document from the Texas Department of Motor Vehicles (Form VTR-214) website, and take it to their physician for approval. IF the License Medical Professional includes an original prescription, the patient's signature does not need to be notarized on page 2. The patient should take the form to the clinic or doctor in which they are receiving the care under for the disabling condition. The licensed medical professional decides if the placard temporary (6mths) or permanent based on the disabling condition.

Chapter 15

Preventing further limb loss

through PAVE

What is PAVE?

PAVE stands for Preventing Amputation in Veterans Everywhere. The PAVE program has been established at the Houston VAMC to identify and provide care to Veterans who are at risk of limb loss and/or have developed foot/leg problems, which could predispose them to possible limb loss.

The PAVE program coordinator works closely with other specialists to ensure appropriate referral and management of patients with diabetes or other diseases that places them at risk for limb loss or who have undergone amputation.

Who should go?

Veterans with a history of:

- Diabetes
- Progressive peripheral neuropathy
- Peripheral vascular disease
- Tobacco use
- Impaired lower extremity sensation
- Lower extremity ulcers
- Prior amputation
- Absent lower extremity pulses
- Pressure points
- Claudication

Often presenting with secondary complications such as:

- Obesity
- Hypertension
- Osteoarthritis
- Hyperlipidemia
- Strokes
- Cardiac problems
- Renal failure

What should I expect?

The PAVE clinic is a walk in clinic with same day appointments available. A consult is not needed.

Family members are welcomed.
Monday-Friday; 08:00- 15:00 (except observed holidays)
PM&R Waiting Room 2B-301 (near the blue elevators)
713-791-1414 Ext 27168

Type of information provided:

Education classes are offered for low-moderate risk patients with diabetes
One on one clinic visits are offered for high risk patients with diabetes

Educational components include:

- Laboratory values such as HbA1C, blood glucose, and cholesterol
- Medication usage
- Diabetes diet compliance
- Exercise

Services offered:

- Lower extremity evaluation
- Patient education
- Foot sensory testing
- Walking aids
- Equipment

Referral to specialties including:

- Diabetic education
- Podiatry
- Endocrinology
- Smoking cessation
- Vascular surgery
- Prosthetics and orthotics
- Nutrition
- Orthopedics
- Physical medicine and rehabilitation
- Weight loss
- Telephone programs for diabetes control and weight loss

Glossary

ABC certified: the provider or lab is certified by the American Board for Certification in Orthotics, Prosthetics & Pedorthotics

ADL: activity of daily living; activity you participate in daily as part of your own care; bathing, dressing, cooking, cleaning, etc.

Above knee: type of amputation also called transfemoral because a cut is made through the femur bone between the hip and the knee; the hip is saved and the foot and the knee are lost

AK: abbreviation for above knee amputation; see Above Knee

Alignment: The angles that the different pieces of your prosthesis are attached together, the type of pieces used, what your limb looks like and your range of motion will affect the angles; for lower limb amputees, the way you walk will also affect the alignment; this may need to be changed over time as you change

Assistive Device: a device used to help walk or participate in a daily activities such as bathing or eating; examples include walkers, canes, shower chairs, weighted spoons, reachers

Bilateral: both the right and left limb are affected

Below Knee: type of amputation also called transtibial because a cut is made through the tibia bone between the knee and the foot; the hip and the knee are saved and the foot is lost

BK: abbreviation for below knee amputation; see Below Knee

Check socket: a socket that is made during the fabrication process that is made of clear plastic so your prosthetist can see how your limb looks in the socket and is easy to make adjustments to, more than one test socket may be made

Components: the different pieces of the prosthesis that are connected to the socket your prosthetist makes (prosthetic knee, prosthetic foot, pylon)

Compressogrip: a disposable compressive roll used to shape the residual limb, you can begin to wear this immediately after surgery and you will wear until your staples or sutures are removed and you can begin wearing a shrinker

Contracture: a tightening of a muscle or muscles that occurs when someone stays in the same position too long, the muscle becomes so tight that the person can no longer move out of that position

Cosmetic cover: a cover that can be placed over a prosthetic device that will look like skin and make the prosthesis look more like an anatomical limb

Desensitization: using massage or rubbing to decrease the sensitivity of an area, usually your residual limb

Heterotopic Ossifiction: occurs when the end of the bone that is cut continues to grow in certain areas, can be painful, happens mostly when the cause of the amputaiton is traumatic

Kinesiotherapist: provides sub-acute or post-acute rehabilitative therapy focusing on therapeutic exercise, reconditioning and physical education

Liner: cover, often made of gel, that many types of prosthesis use over the residual limb to protect the skin

Occupational Therapist: helps people across the lifespan improve their ability to participate in daily living and work activities through the use of therapeutic actions to perform everyday tasks

Peer Visitor: person with a similar experience who can understand what you are going through and give you support

Phantom Limb Pain: the feeling of pain in the limb that has been amputated and is no longer there, often described as a feeling of cramping, aching or burning

Physiatrist: doctor who specialized in Physical Medicine & Rehab (PM&R) medicine, treat pain and musculoskeletal injuries

Pistoning: movement up and down inside the socket when the prosthesis does not fit well

Prosthestist: makes and fits prosthetic limbs

Prosthesis: artificial limb made to replace the one lost due to amputation

Physical Therapist: help patients reduce pain and improve or restore mobility

Pylon: the tube that connects the foot to the rest of the prosthesis

Residual limb: the limb that remains after an amputation surgery, also sometimes called a stump

Revision surgery: surgery done on the residual limb after the initial amputation, this can be done due to injury, pain or other reasons

Shrinker: a more permanent garment made of a material similar to compression stockings that you can begin to use after your staples or sutures have been removed to help shape and reduce swelling in your residual limb

Socket: the part of the prosthesis that your residual limb fits into

Socks: worn over your liner to fill empty space inside the socket when your residual limb gets smaller

Suspension: how your prosthesis is held onto your residual limb, there are many different types and the Amputee Clinic will work with you to determine which one is the best for you

Transfemoral amputation: see Above Knee

Transtibial amputation: see Below Knee

Resources*

Education

Amputee Coalition
amputee-coalition.org

Veteran Affairs Amputee System of Care
www.rehab.va.gov/asoc

Houston Amputee Society
houstonamputeesociety.org

Disability information
disabilityInfo.gov

Health Finder
Healthfinder.gov

American Dietetic Association
eatright.org

American Obesity Association
obesity.org

Assistance and/or Advocacy

American Association of People with Disabilities
www.aapd.com

Fair Housing Act
hud.gov/offices/fheo/FHLaws

National Patient Advocate Foundation
npaf.org

Patient Advocate Foundation
patientadvocate.org

Benefits Check up
benfitscheckup.org

Sports and Recreation

Houston Adaptive Sports Programs
www.houstontx.gov/parks/adaptivesports.html

Wounded Warrior events (ski, snowboard, swim, weight lifting, shooting)
Woundedwarriorproject.com

Arm biking
Ushf.org (us handcycling)
Usparalympics.org
ride2recovery.com

Fishing
heroesonthewater.org

Amputees in Action (skydiving, ice hockey)
713 747-7647

Water Sports and Outdoor events (water ski, hunting)
www.taasports.org
ampsoccer.org
awba.org
www.disabledsportsusa.org

Adaptive Adventures
www.adaptiveadventures.org

Challenged Athletes Foundation
www.challengedathletes.org

National Amputee Golf Association
www.nagagolf.org

National Sports Center for the Disabled
www.nscd.org

Wheelchair Sports USA
www.wasusa.org

Caregivers
Family Caregiver Alliance
caregiver.org

National Alliance for Caregiving
caregiving.org

National Caregivers Library
caregiverslibrary.org

*resources listed in this section are resources our team are aware of through interaction with them or word of mouth, listing them here does not imply that the VA or our Amputee Team endorses them in any way; if you know of a group, website or book that was particularly helpful and think we should add it to the list, please let us know